GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:4558
ANSWERED ON:17.04.2001
GENES OF PLANTS
CHANDRA NATH SINGH

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Government have formulated any scheme to improve the genes of plants which are important from the medicinal point of view and for the traditional vaccines; and

(b) if so, the details thereof ?

Answer

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) & (b) : Yes Sir. A multi-institutional project is under implementation to develop transgenic plants for production of edible vaccines against cholera and rabies. Tomato plants with Cholera Toxin gene have been produced. A rabies glycoprotein gene of the ERA strain rabies virus has been introduced into muskmelon and expression of a 66 kD glycoprotein has been confirmed in the transgenic plants. In addition, glycoprotein G gene of Indian wild strain of the rabies virus has been expressed in cabbage. The immunogenicity of the proteins expressed in tomato and muskmelon, is being tested in mice. Work on another important medicinal plant, Periwinkle(Sadabahar) is planned at National Centre for Plant Genome Research, New Delhi.